Title (en)
AUTOMATED PROCESS FOR INTERMEDIATE ORTHODONTIC DIGITAL SETUP GENERATION

Title (de)
AUTOMATISIERTES VERFAHREN ZUR ERZEUGUNG EINER KIEFERORTHOPÄDISCHEN DIGITALEN ZWISCHENKONFIGURATION

Title (fr)
PROCESSUS AUTOMATISÉ DE GÉNÉRATION DE RÉGLAGES NUMÉRIQUES ORTHODONTIQUES INTERMÉDIAIRES

Publication
EP 3691559 B1 20220907 (EN)

Application
EP 18865142 A 20180927

Priority
• US 201762569081 P 20171006
• IB 2018057516 W 20180927

Abstract (en)
[origin: WO2019069191A2] A method for generating digital setups for an orthodontic treatment path. The method includes receiving a digital 3D model of teeth, performing interproximal reduction (IPR) on the model and, after performing the IPR, generating an initial treatment path with stages including an initial setup, a final setup, and a plurality of intermediate setups. The method also includes computing IPR accessibility for each tooth at each stage of the initial treatment path, applying IPR throughout the initial treatment path based upon the computed IPR accessibility, and dividing the initial treatment path into steps of feasible motion of the teeth resulting in a final treatment path with setups corresponding with the steps. The setups can be used to make orthodontic appliances, such as clear tray aligners, for each stage of the treatment path.

IPC 8 full level
A61C 7/00 (2006.01); **A61C 9/00** (2006.01)

CPC (source: EP US)
A61C 7/002 (2013.01 - EP US); **A61C 9/0053** (2013.01 - US)

Citation (examination)
CN 105853008 A 20160817 - HANGZHOU MEIQI TECH CO LTD

Cited by
EP3946140A4; US11957536B2; US11612459B2; US11911971B2

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)
WO 2019069191 A2 20190411; **WO 2019069191 A3 20190613**; CN 111315314 A 20200619; CN 111315314 B 20220222;
EP 3691559 A2 20200812; EP 3691559 A4 20210505; EP 3691559 B1 20220907; JP 2020535908 A 20201210; JP 7285250 B2 20230601;
US 2020229900 A1 20200723

DOCDB simple family (application)
IB 2018057516 W 20180927; CN 201880065233 A 20180927; EP 18865142 A 20180927; JP 2020519142 A 20180927;
US 201816652755 A 20180927